Asbestos-induced Mesothelioma

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Wednesday, 18 February 2009 14:44 - Last Updated Wednesday, 07 December 2016 10:11

The Chemical Review Committee of the Rotterdam Convention states in a 2005 draft decision that "epidemiological studies, mainly on occupational groups, have established that all types of asbestos fibres are associated with diffuse pulmonary fibrosis (asbestosis), bronchial carcinoma (lung cancer), and primary malignant tumors of the pleura and peritoneum (mesothelioma)."

Recall the above section on Association versus Causation and the rejected manuscript on asbestos-related respiratory symptoms. Incidentally, the reviewer's husband, a Professor of Epidemiology at McGill University in Quebec, Canada, conducted a study in 1966 which received $500,000 in research funding from Quebec Asbestos Mining Association. The study asserted that contaminants in the environment, not chrysotile asbestos, cause lung tumors seen in Canadian workers. In 1976, an International Agency for Research on Cancer working group declares all types of asbestos cause lung cancer. In the late 1980's the same McGill researcher suggests that tremolite asbestos found in Canadian chrysotile asbestos (which was usually around one per cent) is the cause of mesotheliomas in Canada.

In 2006, the International Labour Organization and World Health Organization advocate support for a global asbestos ban. Health Canada's study report on the effects of chrysotile asbestosis finalized and peer-reviewed in March 2008, but not released. The chair of the panel, Trevor Ogden, writes in the September 2008 editorial of the Annals of Industrial Hygiene: "It did seem that Canada had committed itself to establishing where the scientific consensus lay. It is sometimes argued that continuing use of chrysotile in developing countries is justified by the benefits, even in health terms, but this argument should be informed by the best evaluation of the science. Canada's critics said that this was going to be the outcome from the beginning and that the government's main interest will be commercial to prevent chrysotile being added to the Prior Informed Consent list in the Rotterdam Convention."


The four own selected studies on the topic of asbestos-induced mesothelioma spanning a time interval of 30 years. The first article is from the point in time when the causal issue of whether asbestos exposure causes mesothelioma was still controversial in spite of the epidemiological evidence, while the second one was published a decade ago and convincingly verified the
causal relation by ecological modeling. Today the differential diagnosis of pleural mesothelioma is possible by means of modern DNA techniques assisted by either a conventional multivariate discriminant function analysis (third article) or by rather sophisticated hierarchical tree-regression prediction and classification procedures (fourth article).


